

What is claimed is:

1                   1.    An inflator comprising:  
2                    an elongated hollow tubular member containing an elongated supply of  
3                   pyrotechnic gas generant material reactable to produce a supply of gas, the tubular  
4                   member having a length to diameter ratio greater than 20 and including a plurality of  
5                   longitudinally-spaced apart gas exit orifices wherethrough at least a portion of the  
6                   supply of gas provided by reaction of the pyrotechnic gas generant material can be  
7                   expelled from the tubular member

1                   2.    The inflator of claim 1 wherein at least a portion of the supply of  
2                   pyrotechnic gas generant material comprises a plurality of cylindrical annular-shaped  
3                   grains axially aligned end to end along the length of the tubular member.

1                   3.    The inflator of claim 2 wherein the cylindrical annular-shaped  
2                   grains comprise an inner surface at least partially coated with an ignition enhancing  
3                   material.

1                   4.    The inflator of claim 2 wherein the cylindrical annular-shaped  
2                   grains form an internal cavity longitudinally extending substantially through the  
3                   supply of pyrotechnic gas generant material, the inflator additionally comprising an  
4                   elongated ignition article extending within the internal cavity.

5           5.     The inflator of claim 1 additionally comprising a gas diffusible  
6 containment member within the elongated hollow tubular member and surrounding  
7 at least a portion of the supply of pyrotechnic gas generant material.

1           6.     The inflator of claim 5 wherein the gas diffusible containment  
2 member comprises an expanded metal.

1           7.     The inflator of claim 1 wherein the elongated hollow tubular  
2 member is arcuate.

1           8.     An inflation assembly comprising:  
2 the inflator of claim 1 and  
3 an elongated diffuser device secured adjacent the inflator for directing  
4 at least a portion of gas expelled from the inflator into an associated inflatable device.

1           9.     The inflation assembly of claim 8 additionally comprising an  
2 associated inflatable device in inflation fluid communication with the inflator, wherein  
3 inflatable device comprises an inflatable curtain airbag cushion.

1           10.    An inflation assembly comprising:  
2 the inflator of claim 1 and

3 an inflatable device in inflation fluid communication with the inflator  
4 and wherein the inflator is contained.

1 <sup>sub 127</sup> 11. The inflation assembly of claim 10 wherein the inflatable device  
2 comprises an inflatable curtain airbag cushion.

1 <sup>sub 127</sup> 12. The inflation assembly of claim 11 wherein the elongated hollow  
2 tubular member is arcuate.

1 <sup>sub 127</sup> 13. An inflation assembly comprising:  
2 the inflator of claim 1 and  
3 an elongated discharge treatment element secured with the inflator at  
4 selected positions along the respective lengths of the inflator and the discharge  
5 treatment element, the discharge treatment element effective to treat at least a portion  
6 of the gas expelled from the inflator contacting thereagainst and to deform to create  
7 spaced apart gas flow paths between the inflator and the treatment element, the gas  
8 flow paths spaced apart along the respective lengths of the inflator and the treatment  
9 element, the treatment element also directing at least a portion of gas expelled from  
10 the inflator into an associated inflatable device.

1           14.    The inflation assembly of claim 13 additionally comprising a  
2 filter element interposed between the inflator and the discharge treatment element.

1           15.    The inflation assembly of claim 13 additionally comprising an  
2 associated inflatable curtain airbag cushion inflatable device in inflation fluid  
3 communication with the inflator.

1           16.    An inflation assembly comprising:  
2           an elongated inflator adapted to provide a gas-containing discharge  
3 through selected locations spaced along the length of the inflator;  
4           an elongated discharge treatment element secured with the inflator at  
5 selected positions along the respective lengths of the inflator and the discharge  
6 treatment element, the discharge treatment element effective to treat at least a portion  
7 of the gas discharged from the inflator contacting thereagainst and to deform to create  
8 spaced apart gas flow paths between the inflator and the treatment element, the gas  
9 flow paths spaced apart along the respective lengths of the inflator and the treatment  
10 element; and  
11          an inflatable curtain airbag cushion in inflation fluid communication  
12 with the inflator.

1 17. The inflation assembly of claim 16 wherein the inflator comprises  
2 an elongated hollow tubular member containing an elongated supply of pyrotechnic  
3 gas generant material reactable to produce a supply of gas.

1 18. The inflation assembly of claim 17 wherein the elongated hollow  
2 tubular member is arcuate.

1 19. The inflation assembly of claim 16 wherein the inflator is  
2 contained within the inflatable curtain airbag cushion.

1 20. A method of inflating an inflatable device, the method  
2 comprising:  
3 reacting an elongated supply of pyrotechnic gas generant material within  
4 an elongated hollow tubular member of an inflator having a length to diameter ratio  
5 greater than 20 to produce a supply of gas along the length of the tubular member, and  
6 expelling at least a portion of the supply of gas through selected  
7 locations spaced along the length of the inflator.

1 *CI sub* 21. ~~The~~ method of claim 20 wherein, subsequent to expulsion from  
2 the tubular member, the method additionally comprises:

3 treating at least a portion of supply of expelled gas to form a treated gas,  
4 the treating step including,  
5 contacting expelled gas onto an elongated treatment element adjacent  
6 the inflator and  
7 deforming the treatment element to create spaced apart gas flow paths  
8 between the inflator and the treatment element, the gas flow paths spaced apart along  
9 the respective lengths of the inflator and the treatment element; and  
10 directing the treated gas through the spaced apart gas flow paths into the  
11 inflatable device.

1 22. The method of claim 20 wherein the elongated supply of  
2 pyrotechnic gas generant material reacts substantially simultaneously.

1 23. The method of claim 20 wherein the treated gas is directed  
2 through the spaced apart gas flow paths into an inflatable curtain airbag cushion  
3 inflatable device.

1 24. The method of claim 20 wherein, prior to reaction of the  
2 pyrotechnic gas generant material, the hollow tubular member is bent to conform to  
3 an associated inflator-accepting site in an automotive vehicle in which the inflator is  
4 placed.

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